

# GREATNESS STEMS FROM IOWANS

GOVERNOR'S STEM ADVISORY COUNCIL

## Curriculum for Agricultural Science Education (CASE) – Introduction to Agriculture, Food and Natural Resources

### 2016-2017 STEM Scale-Up Program

**Overview:** CASE™ utilizes science inquiry for lesson foundation, and concepts are taught using activity-, project- and problem-based instructional strategies. In addition to the curriculum aspect of CASE™, the project ensures quality teaching by providing extensive professional development for teachers that leads to certification.

**Grade Levels:** 9-12

#### Program Summary

*Introduction to Agriculture, Food, and Natural Resources (AFNR)* introduces students to the range of agricultural opportunities and the pathways of study they may pursue. Science, mathematics, reading and writing components are woven in the context of agriculture, and students will use the introductory skills and knowledge developed in this course throughout the CASE™ curriculum.

#### Program Objectives and Description

Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

#### What does the program provide to the educator?

- CASE™ Curriculum – 172 rigorous lessons that have been cross-walked to national content standards for math, science, English and agriculture with built-in pedagogical/instructional strategies for differentiated instruction.
- Professional Development Training Institute
  - Two week training held during the summer
  - Lodging
  - Most meals
  - All institute material expenses
- Materials/Equipment to implement CASE™
- Workshops at NAAE Conference
- Access to NAAE Communities of Practice (Professional Learning Communities) on the state and regional level
- Teachers services including purchasing lists, technology support and professional development
- Purposeful assessment of the concepts taught

#### What is required by the educator in order to implement this program?

- Attend two weeks of CASE™ Curriculum Institute (Institute dates and locations will vary based on module requested)
- Commit to adopt and teach CASE™ curriculum upon return from institute (2017-2018 school year)
- Travel expenses above the grant stipend
- Secure equipment and supplies to teach CASE™ course above the award allocation

**Website (with link to Standards Alignment):** <http://www.case4learning.com/index.php/curriculum/case-courses/introduction-to-afnr> and [http://www.case4learning.com/images/documents/CASE\\_Brochure\\_-\\_AFNR.pdf](http://www.case4learning.com/images/documents/CASE_Brochure_-_AFNR.pdf)

**Program Video:** [https://www.youtube.com/watch?v=YNGvaj\\_fztA](https://www.youtube.com/watch?v=YNGvaj_fztA)